

**Zadatak 2.** Izračunaj površinu trokuta  $\triangle ABC$  ako je zadano:

- 1)  $a = 11.5$  cm,  $\beta = 43^\circ$ ,  $\gamma = 78^\circ$ ;
- 2)  $b = 4.8$  cm,  $\alpha = 18^\circ 30'$ ,  $\gamma = 115^\circ 22'$ ;
- 3)  $c = 25.2$  cm,  $\alpha = 77^\circ 30'$ ,  $\beta = 53^\circ$ .

**Rješenje.**

1)

$$a = 11.5\text{cm}$$

$$\beta = 43^\circ$$

$$\gamma = 78^\circ$$

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$$P = ?$$

$$\alpha = 180^\circ - \beta - \gamma = 59^\circ$$

$$P = \frac{a^2 \cdot \sin \beta \cdot \sin \gamma}{2 \cdot \sin \alpha} = 51.46\text{cm}^2.$$

2)

$$b = 4.8\text{cm}$$

$$\alpha = 18^\circ 30'$$

$$\gamma = 115^\circ 22'$$

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$$P = ?$$

$$\beta = 180^\circ - \alpha - \gamma = 46^\circ 8'$$

$$P = \frac{b^2 \cdot \sin \alpha \cdot \sin \gamma}{2 \cdot \sin \beta} = 4.58\text{cm}^2.$$

3)

$$c = 25.2\text{cm}$$

$$\alpha = 77^\circ 30'$$

$$\beta = 53^\circ$$

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$$P = ?$$

$$\gamma = 180^\circ - \alpha - \beta = 49^\circ 30'$$

$$P = \frac{c^2 \cdot \sin \alpha \cdot \sin \beta}{2 \cdot \sin \gamma} = 325.58\text{cm}^2.$$